

**In the Drawings**

The attached replacement and annotated sheet(s) of drawings include the addition of Figure 11 which illustrates a rotary mass actuator including an obstacle as well as a compliant member. Figure 11 is completely supported by paragraph 0039 in the applicants' specification.

Attachment: Replacement sheet(s)  
Annotated sheet(s) showing changes

**REMARKS**

The office action mailed January 16, 2007 has been carefully considered. Within the office action, claims 29-32 have been rejected. In addition claims 1, 3, and 5-23 have been allowed. The applicants have amended claims 16-23, and 29-32. Reconsideration in view of the following remarks is respectfully requested.

**Drawings**

The drawing figures have been objected to in the Office Action. The applicants have added new figure 11 which illustrates an embodiment of the actuator including a spring member as well as an obstacle member. The drawing does not add any new matter considering that it is fully disclosed in paragraph 0039 in the applicants' specification. The applicants have also provided formal drawings for figures 1 to 11 which are included with this reply. Approval of the formal drawings is respectfully requested.

**Rejection(s) Under 35 U.S.C. § 112, Second Paragraph**

Claims 31 and 32 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. The applicants have amended claims 31 and 32, and respectfully request withdrawal of the rejection in view of the amendments.

**Rejection(s) Under 35 U.S.C. § 102**

Claims 30 and 31 were rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by Furuki (U.S. pat. no. 6,268,671). The applicants respectfully traverse.

According to the M.P.E.P., a claim is anticipated under 35 USC § 102 only if each and every claim element/limitation is described, either expressly or inherently, in a single prior art reference.

Furuki describes a vibration generation apparatus which allows vibration frequencies to be controlled to produce various modes of vibration. In particular, the device in Furuki is an actuator which includes a plunger 11 which moves linearly in a direction toward a recess portion 14c when the device is energized. A spring member is attached to the plunger 11, wherein the spring urges the plunger to move in an opposite linear direction when the device is no longer energized. Nonetheless, Furuki does not disclose an actuator which rotates a mass about a shaft as recited in claims 30 and 31. Considering that Furuki does not disclose each and every element/limitation in claims 30 and 31, Furuki cannot be used to support a proper 102 rejection. For at least these reasons, claims 30 and 31 are allowable over Furuki.

**Rejection(s) Under 35 U.S.C. § 103 (a)**

Claims 29 and 32 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Furuki.

According to the Manual of Patent Examining Procedure (M.P.E.P.),

To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed

combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure.<sup>1</sup>

M.P.E.P. 2141, See Hodosh v. Block Drug Co., Inc., 786 F.2d 1136 (Fed. Cir. 1986) (When applying a 35 U.S.C. 103 rejection, the following tenets of patent law must be adhered to: the claimed invention must be considered as a whole; the references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination; the references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and reasonable expectation of success is the standard with which obviousness is determined.)

In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530 (Fed. Cir. 1983). Thus, when considering the whole prior art reference its entirety, portions that would lead away from the claimed invention must be considered. W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540 (Fed. Cir. 1983), See M.P.E.P. 2141.02. Thus, it is improper to combine references where the references teach away from their combination. In re Grasselli, 713 F.2d 731 (Fed. Cir. 1983).

The applicants would like to point out that in the prior office action, the examiner had objected to claims 29 to 32 as being allowable if rewritten in independent form. The applicants had relied on the examiner's assertions to amend claims 29 to 32 to be independent claims. Nonetheless, claim 29 has been amended to recite that the vibrotactile interface device is

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<sup>1</sup> M.P.E.P. § 2143.

configured to output the vibrotactile force by rotating a mass about a shaft. As stated above, Furuki does not hint, teach, or suggest an actuator which rotates a mass about a shaft to produce a vibrotactile force. Accordingly, claimed 29 is allowable over Furuki, because Furuki does not disclose each and every element as required to support a 103 rejection.

With regard to claim 32, Furuki does not disclose that the vibration is output via a first motor if the vector force effect has a magnitude below a first threshold. In addition, Furuki does not disclose that the vibration is output via a second motor of the vibrotactile interface device if the magnitude of the vector force effect is above the first threshold, as recited in Claim 32. Further, Furuki does not disclose that the vibration is output via both the first and second motor if the magnitude of the vector force effect is above a second threshold, as recited in Claim 32. In addition, the examiner has not shown where these limitations are disclosed in Furuki. For at least these reasons claim 32 is allowable over Furuki, alone or in combination with another reference. Accordingly, allowance of claim 32 is respectfully requested.

Conclusion


It is believed that this reply places the above-identified patent application into condition for allowance. Early favorable consideration of this reply is earnestly solicited.

If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

Applicants respectfully request that a timely Notice of Allowance be issued in this case. Please charge any additional required fee or credit any overpayment not otherwise paid or credited to our deposit account No. 50-1698.

Respectfully submitted,

Dated: 4/16/07

  
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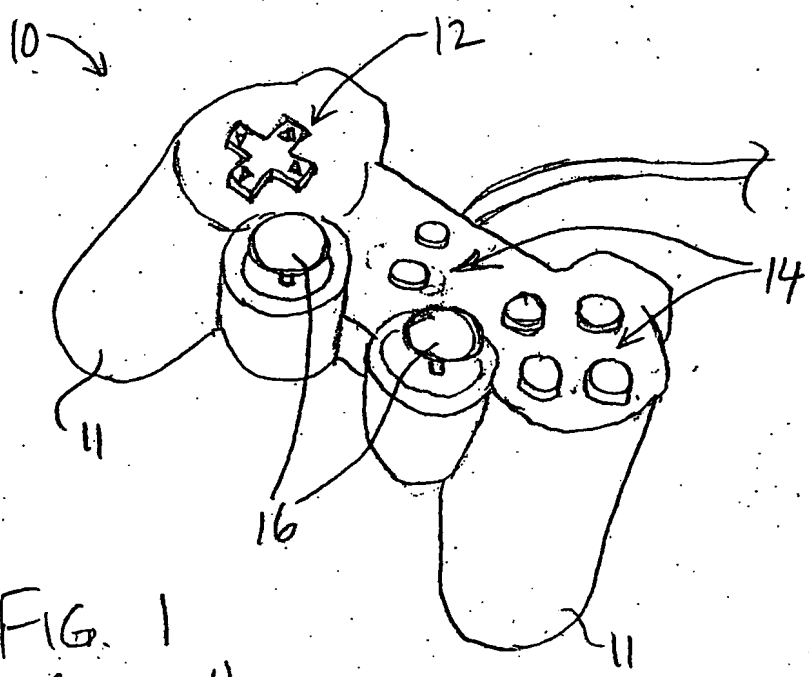


FIG. 1  
(prior art)

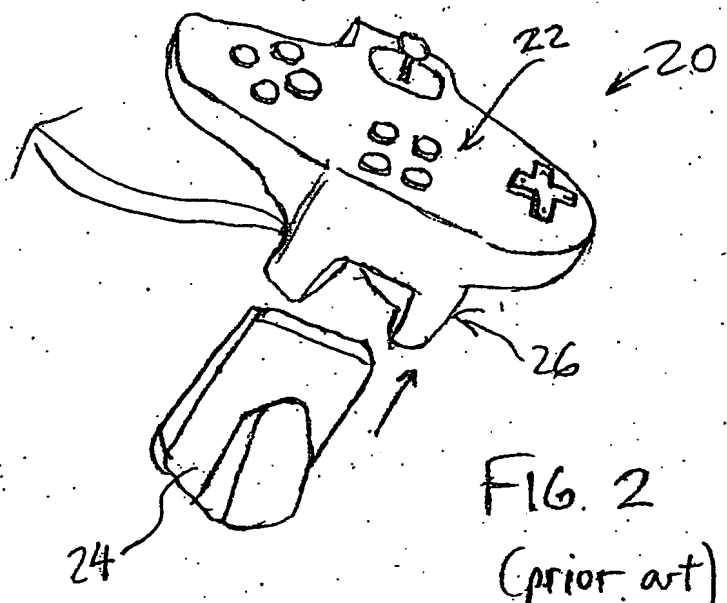


FIG. 2  
(prior art)

ANNOTATED  
SHEET SHOWING  
CHANGES

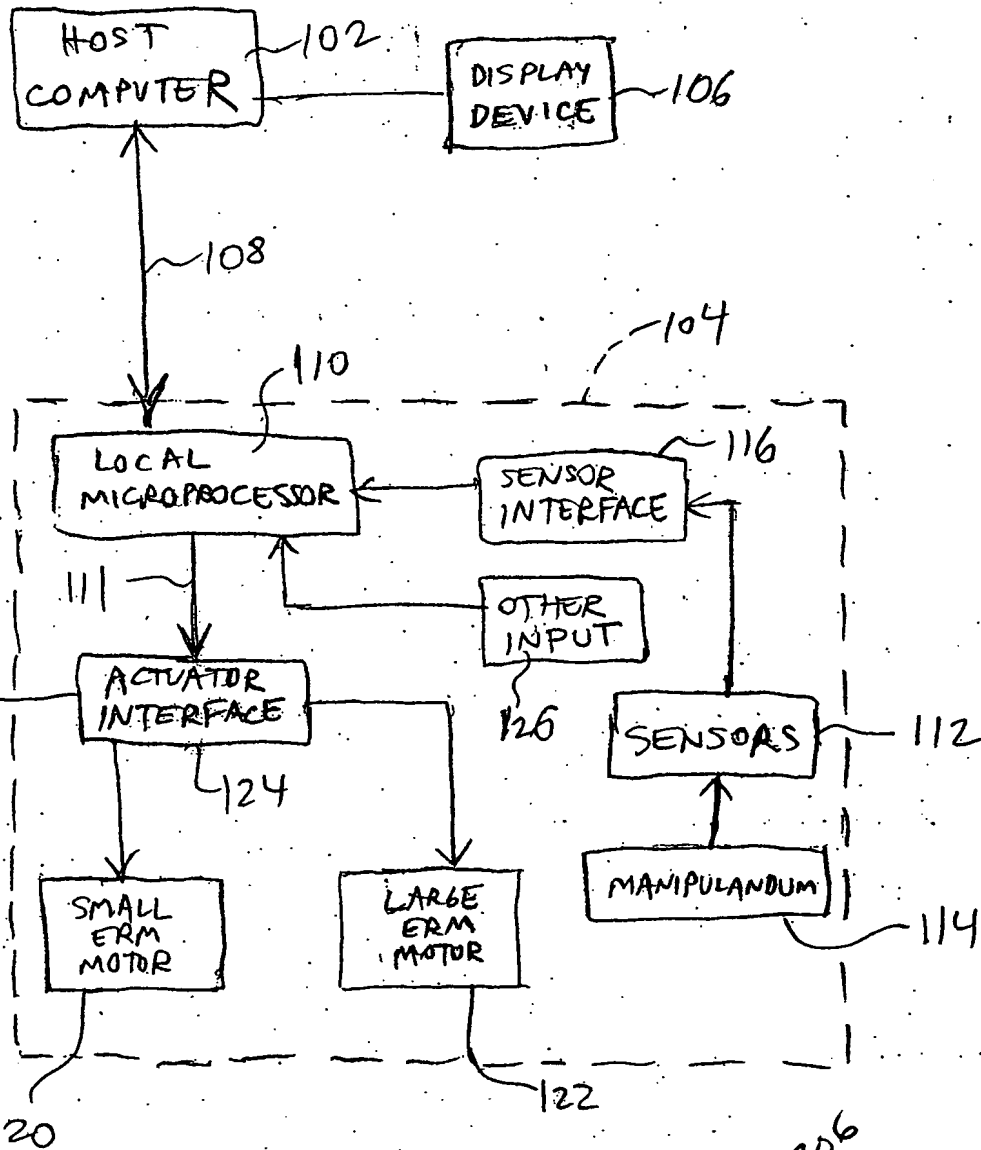
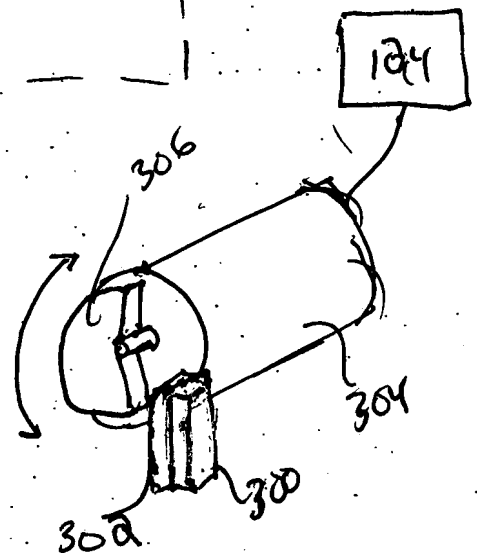


FIG. 4

FIG. 11





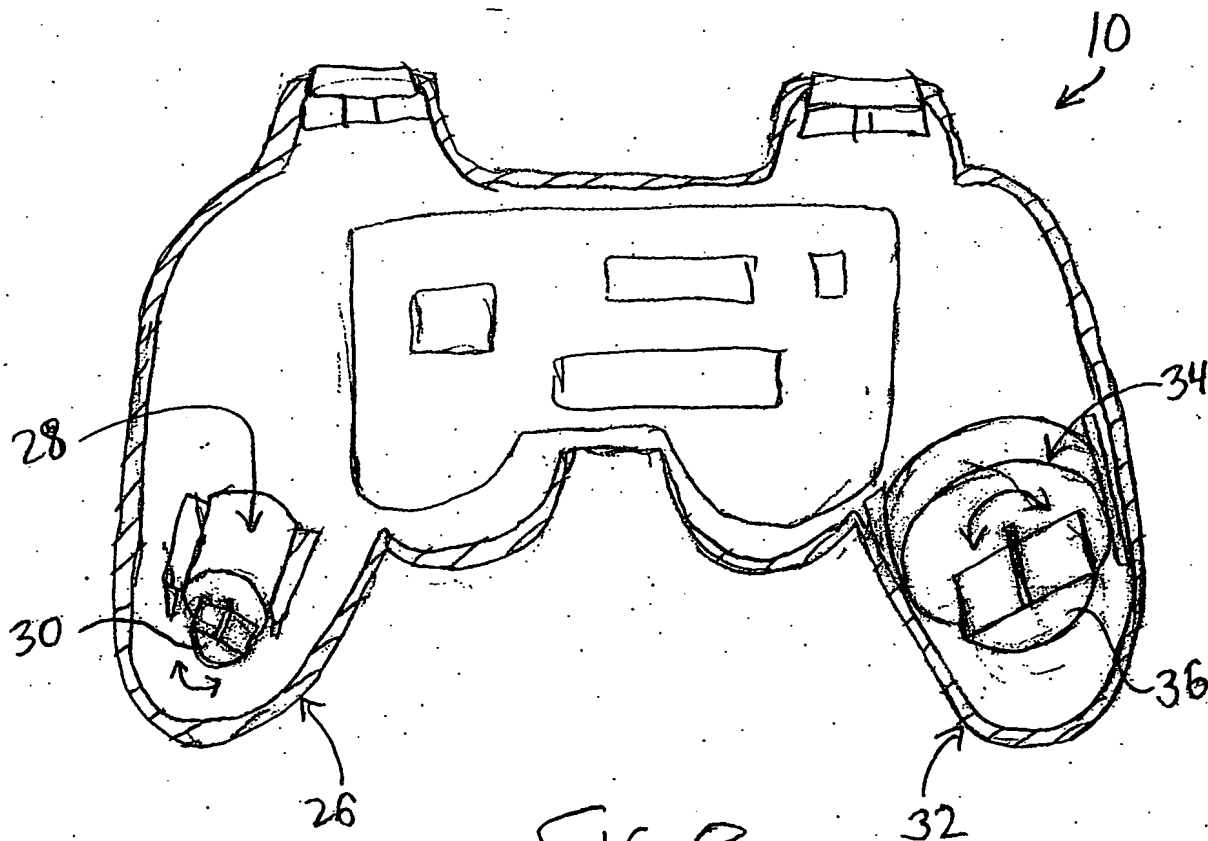


FIG. 3  
(prior art)

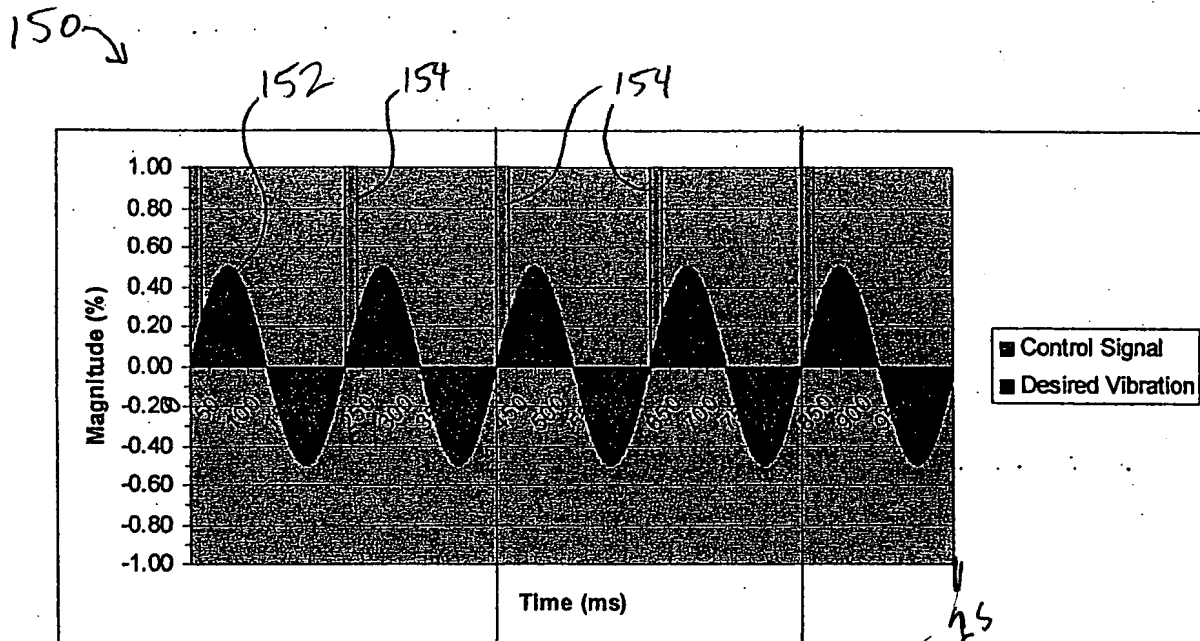


FIGURE 5

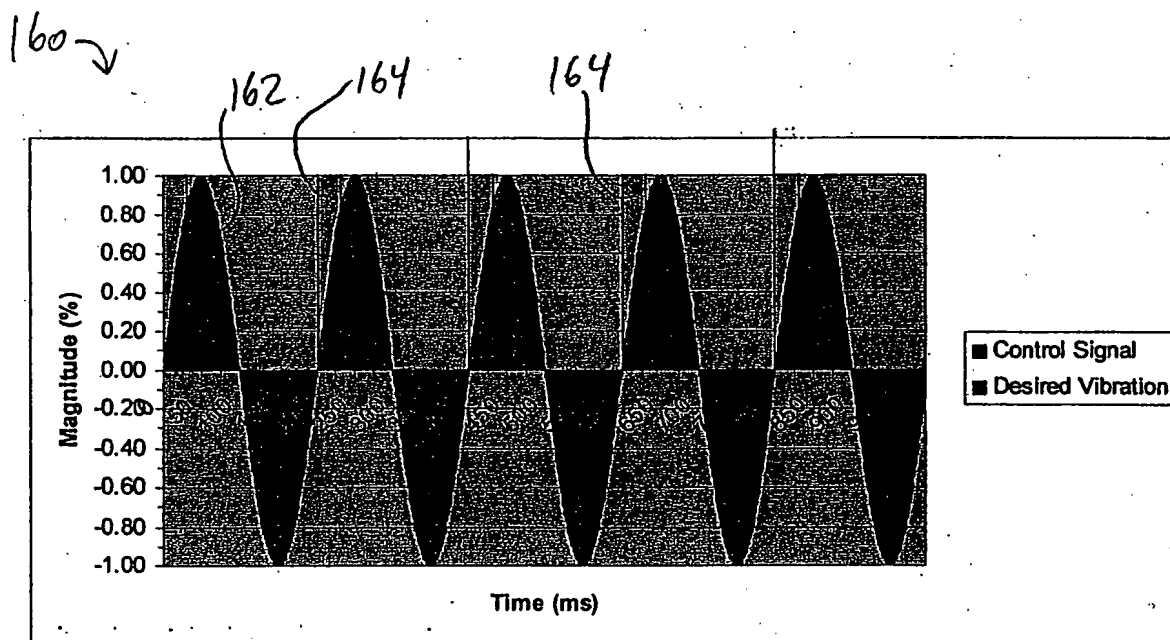


FIGURE 6

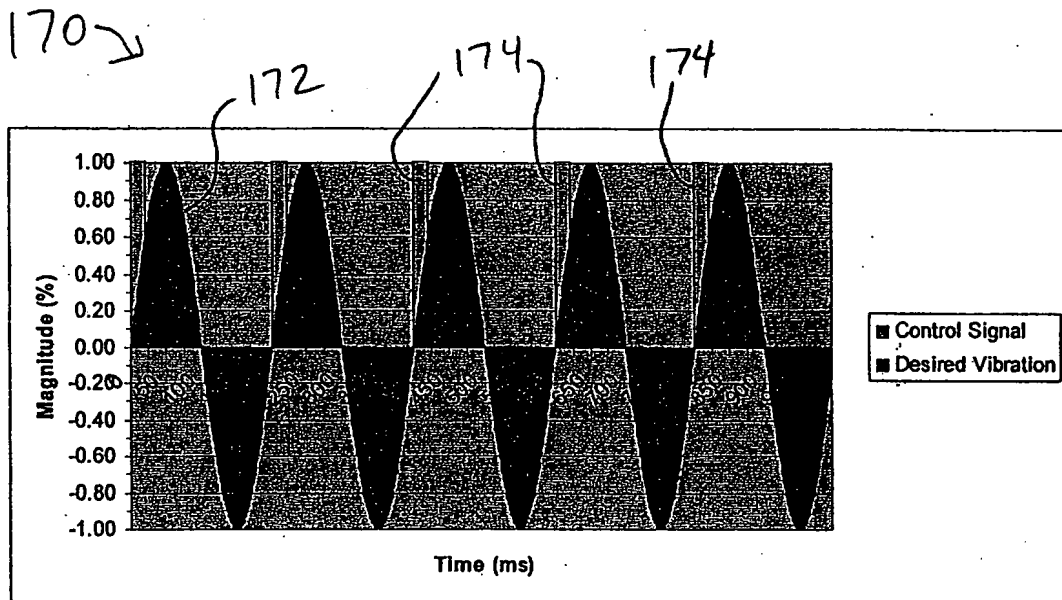


FIGURE 7

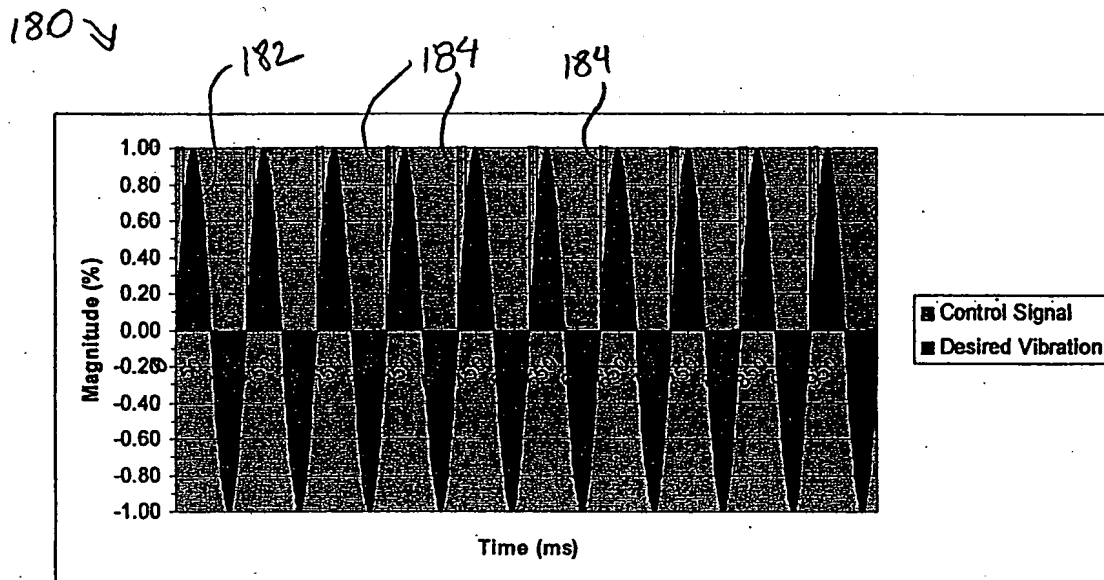


FIGURE 8

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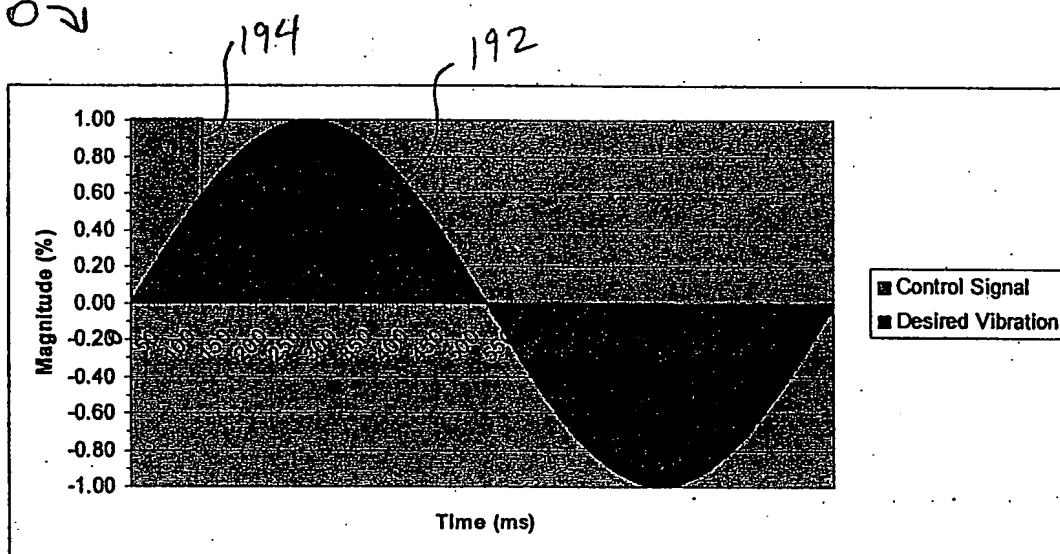


FIGURE 9

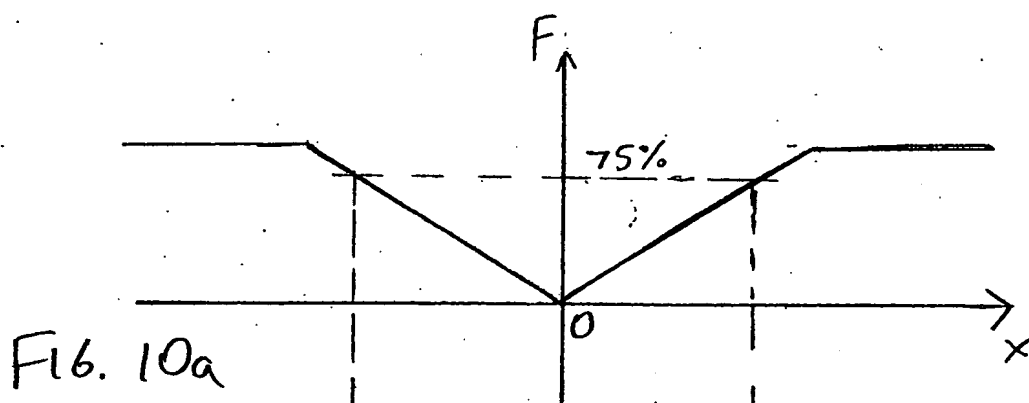


FIG. 10a

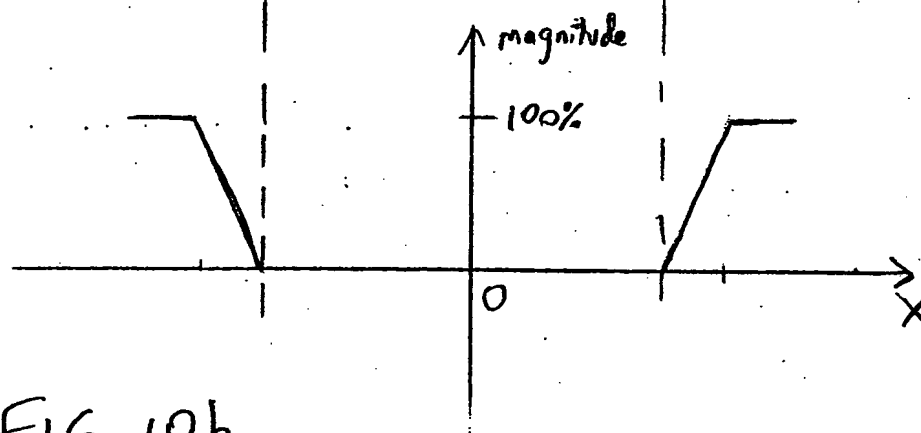


FIG. 10b